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SPECIFICATION FOR MARINE SOUNDING RODS

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MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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SPECIFICATION FOR MARINE SOUNDING RODS

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Indian Standard

SPECIFICATION FOR MARINE SOUNDING RODS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 26 December 1966, after the draft finalized by the Marine Engineering and Shipbuilding Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 One of the means employed on board ships for sounding tanks is the use of sounding rods with proper markings. The sounding rods, when required, are connected to a suitable rope and lowered into the sounding pipe. In the forward and after end of the ship, sounding pipes may have to be fitted at an incline or with smooth curves of large radii. As it is difficult to lower straight rods into such sounding pipes, sounding rods with flexible joints are used.

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1. SCOPE

1.1 This standard specifies the requirements for flexible and straight marine sounding rods.

2. MATERIAL

2.1 The material of the sounding rods shall be as prescribed in any one of the following Indian Standards:

IS : 226-1962 Structural steel (standard quality) (*third revision*)

IS : 291-1961 Naval brass rods and sections (suitable for machining and forging) (*first revision*)

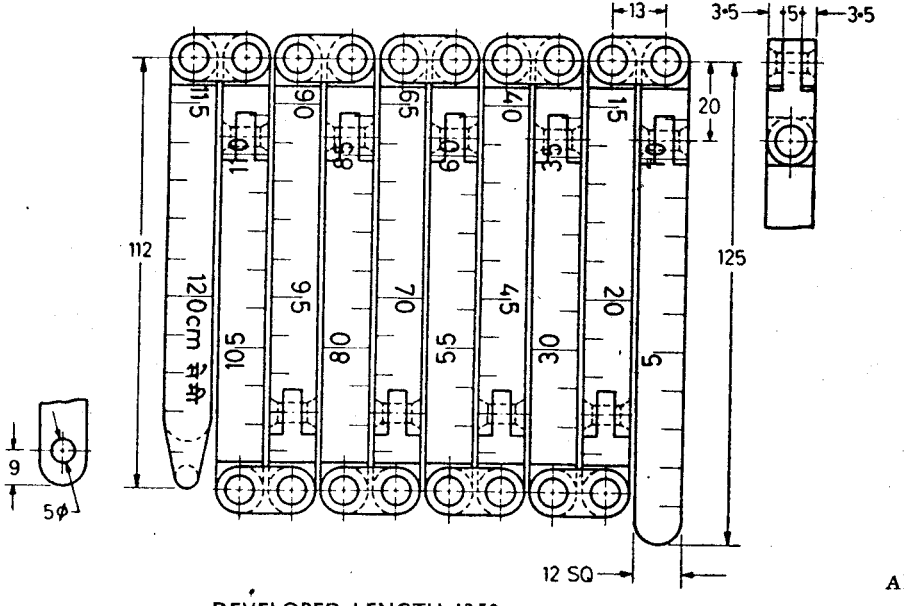
IS : 410-1959 Rolled brass plate, sheet, strip and foil (*first revision*)

IS : 961-1962 Structural steel (high tensile) (*first revision*)

IS : 1385-1959 Phosphor bronze rods and bars, sheet and strip, and wire

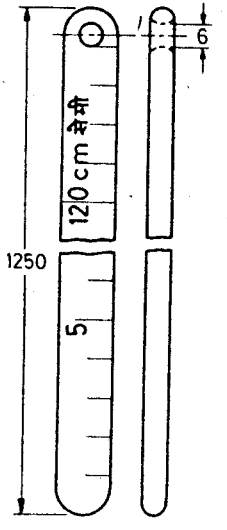
3. DIMENSIONS AND GRADUATIONS

3.1 The shape and dimensions of flexible and straight marine sounding rods shall be as shown in Fig. 1 and 2 respectively.



All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR FLEXIBLE SOUNDING RODS



All dimensions in millimetres.

FIG. 2 DIMENSIONS FOR STRAIGHT SOUNDING RODS

3.2 Flexible sounding rods made of brass or bronze shall be 12 mm square in section. Straight sounding rods made of brass or bronze shall be $14 \times 6{\cdot}3$ mm in section.

3.3 Flexible sounding rods made of steel shall be 12 mm square in section. Straight sounding rods made of steel shall be 15×6 mm in section.

3.4 The length of the graduated part shall be 1 250 mm for straight as well as flexible rods.

3.5 The sounding rods shall be graduated as shown in Fig. 1 and 2.

3.6 The graduation marks shall be clear, of uniform depth and thickness and perpendicular to the edges. These marks shall be filled in black. The thickness of the lines shall be 0·4 mm. The lines shall be of sufficient depth to maintain legibility and indelibility.

3.7 The size of the numbers punched on the sounding rod shall be 5 mm.

4. ACCURACY

4.1 The actual length between any 10 consecutive graduation marks shall not differ by more than 0·02 mm, when compared against a standard certified scale.

4.2 The actual length of the total graduated part shall not differ by more than 2 mm, when compared against a standard certified scale.

5. MARKING

5.1 The abbreviation 'cm' or 'से मी' shall be marked at the end of the graduations.

5.2 Each sounding rod shall be legibly and indelibly marked with the maker's initials and his recognized trade-mark.

5.2.1 The marine sounding rods may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

6. PRESERVATIVE TREATMENT

6.1 The scales shall be smeared with a coating of mineral jelly or any other suitable preservative and wrapped in greaseproof paper.

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